

PRODUCT MODIFICATION SUMMARY
7CT1N

INDEX PAGE: 1 TITLE: CURVE TRACER

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B010200	3	PC-3			

Incorrect adjustment range of R90, the V/Step Cal potentiometer, corrected by changing R91 from a 3.3k Ω , 10%, 0.25W resistor (pn 316-0332-00) to a 2k Ω , 5%, 0.25W resistor (pn 315-0202-00).

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B050910	3	M21683	101.01		

The device-under-test may appear to oscillate. To prevent the apparent oscillations, by-pass capacitors, C12, C112, and C212, were added to the Main circuit board. The circuit board part number changed from 670-1933-00 to 670-1933-01.

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
NA	3	M23528			

To eliminate clearance problems, the 3-pin transistor sockets (pn 136-0220-00) were replaced with (3 ea) pin connector sockets (pn 136-0252-04) on the Main circuit board.

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
NA	2	M57487			

To improve product and component reliability, C30 and C32, both 100 μ F, 25V capacitors (pn 290-0215-00), were replaced with 100 μ F, +50-10%, 63V, electrolytic capacitors (pn 290-0817-00). The capacitors are located on the Main circuit board, A1, which changed part number from 670-1933-01 to 670-1933-02.

PRODUCT MODIFICATION SUMMARY
7CTIN

INDEX PAGE: 2 TITLE: MISCELLANEOUS

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B030480	3	M20100	102.01		
<p>Possible destruction of 7000 Series Readout microcircuits, due to bridging of the contacts on the interface connector while the plug-in was being inserted, was eliminated by removing several unused contacts from the plug-in connector and the mainframe connector.</p>					

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B030780	3	M21376			
<p>Pin connector sockets (pn 136-0252-04) were replaced with 3-pin transistor sockets (pn 136-0220-00), a 6-pin socket (pn 136-0235-00) and 8-pin microcircuit sockets (pn 136-0514-00) which are more readily available.</p>					

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B052270	3	M32301			
<p>To prevent switch contacts and plastic cam drums from being damaged by the use of the wrong cleaners, an identification marker (pn 334-3448-00) was added to the cam switch covers. The marker reads NOTICE - CLEAN SWITCH CONTACTS ONLY. USE ISOPROPYL ALCOHOL OR CLEANERS LISTED IN MANUAL.</p>					

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
NA	3	M32378			
<p>To facilitate manufacturing, the rear panel was modified which eliminates the need for the metal spacer, pn 361-0326-00. The rear panel part number remained the same.</p>					

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7CT1N

INDEX PAGE: 2 TITLE: MISCELLANEOUS

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
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B052270	3	M33439			
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To prevent component damage caused by installing the plug-in while power is on, a tag (pn 334-3438-00), which reads TURN OFF POWER BEFORE INSTALLING PLUG-IN, was added to the top plug-in frame section (pn 426-0505-14).

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
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B052875	3	M38698			
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To facilitate manufacturing, the 4-40 x 0.312 screw-washer assemblies (pn 211-0116-00), used to attach the cam switch bearings, were replaced with 4-40 x 0.29 screw-washer assemblies (pn 211-0292-00) having a single, cone-type washer.

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
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NA	3	M40844	102.02		
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The transistor sockets used in the manufacture of the TO-5 AND TO-18 Transistor Adapter (pn 013-0128-00) were no longer available. The replacement sockets required a new layout of the circuit board within the adapter.

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
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B052955	3	M41109			
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To facilitate assembly, the eight 6-32 x 0.5 fillister head screws (pn 213-0192-00), used to secure the front subpanel and the rear panel to the top and bottom frame sections, were replaced with 6-32 x 0.437 fillister head screws (pn 213-0793-00) which are prewaxed for easier insertion.

7CTIN

INDEX PAGE: 2

TITLE: MISCELLANEOUS

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B053545	3	M43102			

To ensure the latch release does not hang up in the released position, the latch release bar (pn 105-0076-02) was replaced with a modified bar (pn 105-0076-04).

SERIAL NUMBER	CLASS	CHANGE NUMBER	PAGE	KIT PN	KIT PAGE
B053700	3	M46476			

To facilitate installation and removal of the side shields, the left and right side shields (pn 337-1064-04) were replaced with new shields (pn 337-1064-12) which have the slots relocated.

BYPASS CAPACITORS**Effective Prod SN B050910**

Vertical and horizontal error signals were being generated because of improper bypassing of the Operational Amplifiers, U11, U114, and U194. To prevent these error signals, the following 0.01 μ F bypass capacitors were added:

1. C12 between pins 4 and 7 of U11.
2. C112 between pins 4 and 7 of U114.
3. C212 between pins 4 and 7 of U194.

C12 and C212 were located on the back and C112 was located on the front of the Main circuit board, pn 670-1933-01. See attached drawings for details.

PARTS REMOVED:

670-1933-00 Main Circuit Board

PARTS ADDED:

670-1933-01 Main Circuit Board

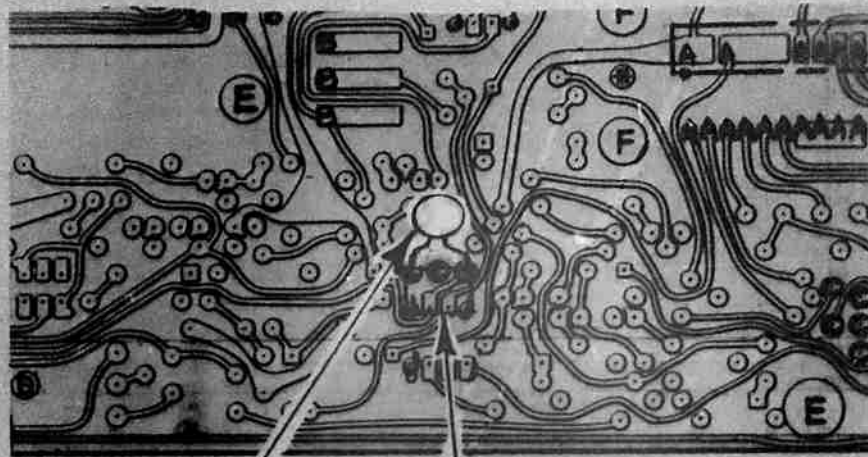
The new 670-1933-01 is the same as the old 670-1933-00 except as follows:

PARTS REMOVED:

NONE

PARTS ADDED:

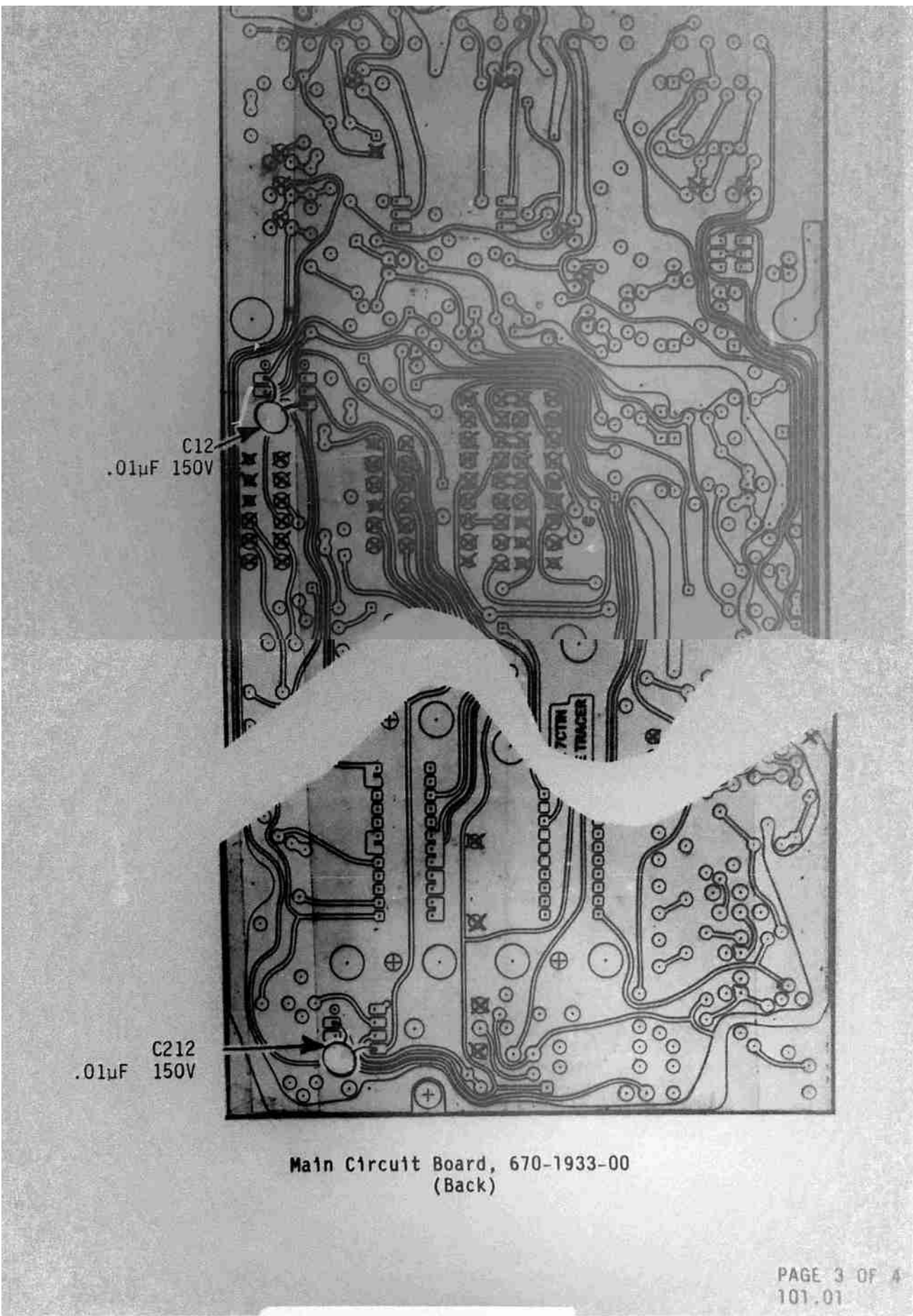
C12, C112
C212 283-0003-00 Capacitor, cer, 0.01 μ F, -20+80%, 150V



C112
.01 μ F 150V

U114

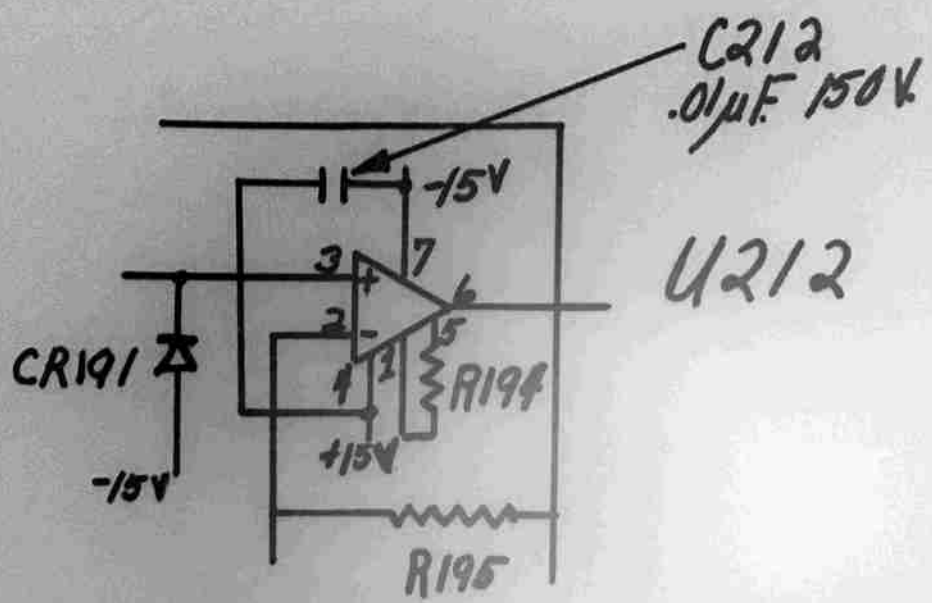
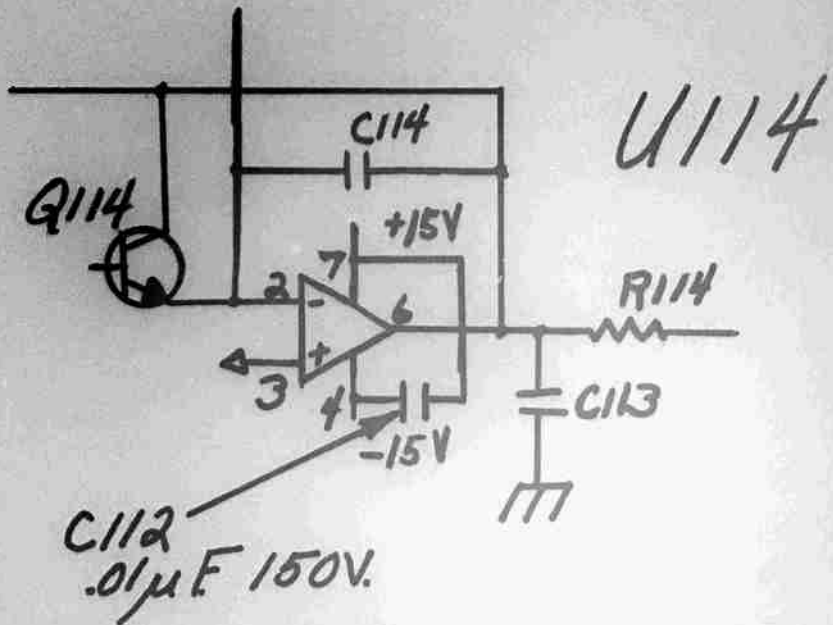
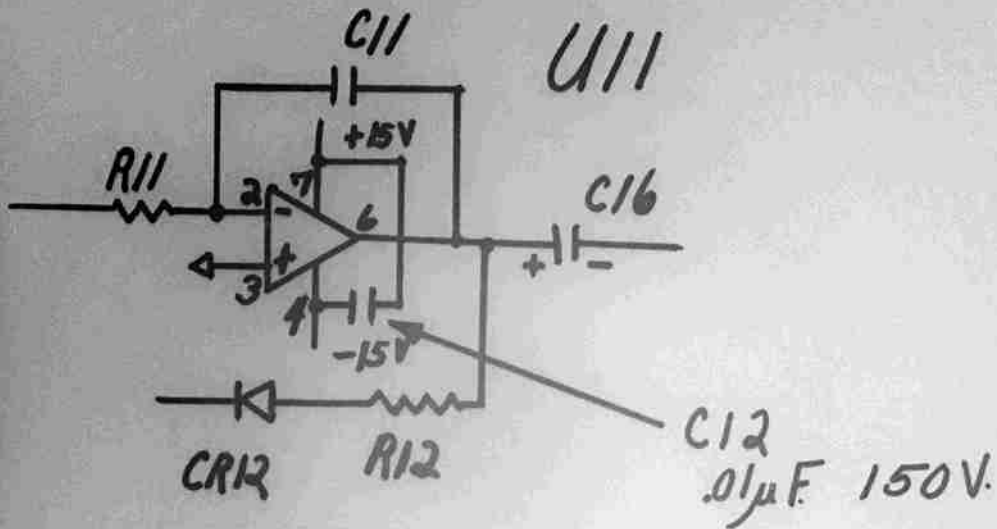
Main Circuit Board, 670-1933-00
(Front)



C12
.01 μ F 150V

C212
.01 μ F 150V

Main Circuit Board, 670-1933-00
(Back)





product modification

M20100

Type 7CTIN

UNUSED CONTACTS REMOVED

Effective Prod SN B030480

This modification is for all 7000/2600 Series main frames and plug-ins.

IC's in the 7000 Series main frame readout circuitry may be shorted by plug-ins bridging the interface connector contacts in the main frame. Bridging allows higher voltage from the lower contacts to short to the lower voltage IC contacts. The bridging is most likely to occur while the plug-in is being inserted and is not fully aligned in the main interface connector.

The problem is eliminated by removing unused contacts 28A & B, 34A & B, and 36A & B from the plug-in and the main frame interface connectors. See drawing for details.

2600 Series instruments were modified for connector standardization only.

Parts Removed/Added:

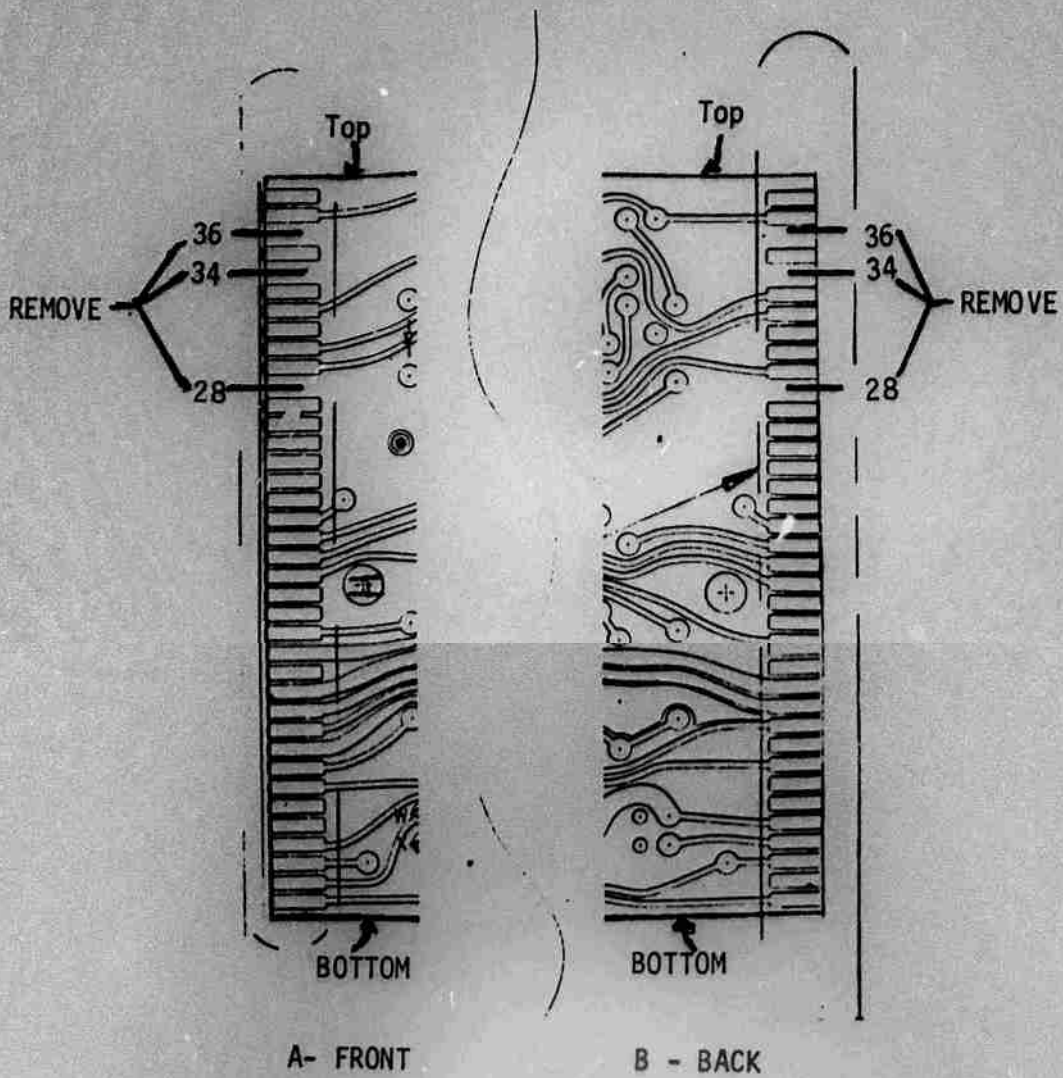
NONE

A. TO REMOVE UNUSED CONTACTS FROM PLUG-INS: (Refer to drawing on page 2)

- () 1. Locate contacts 28A & B, 34A & B and 36A & B. Contacts are numbered in ascending order from the bottom to the top. "A" contacts are on the front side of the Interface board and "B" contacts are on the back side of the board.

NOTE: The contacts (Interface board circuit pads) to be removed do not have circuit runs connected to them.

- () 2. Using a sharp knife, pry under the edge of the contact pad and rock the blade back and forth to roll the pad off the board. Heating the pad with soldering iron will help loosen it.



TYPICAL CIRCUIT BOARD
(INTERFACE)

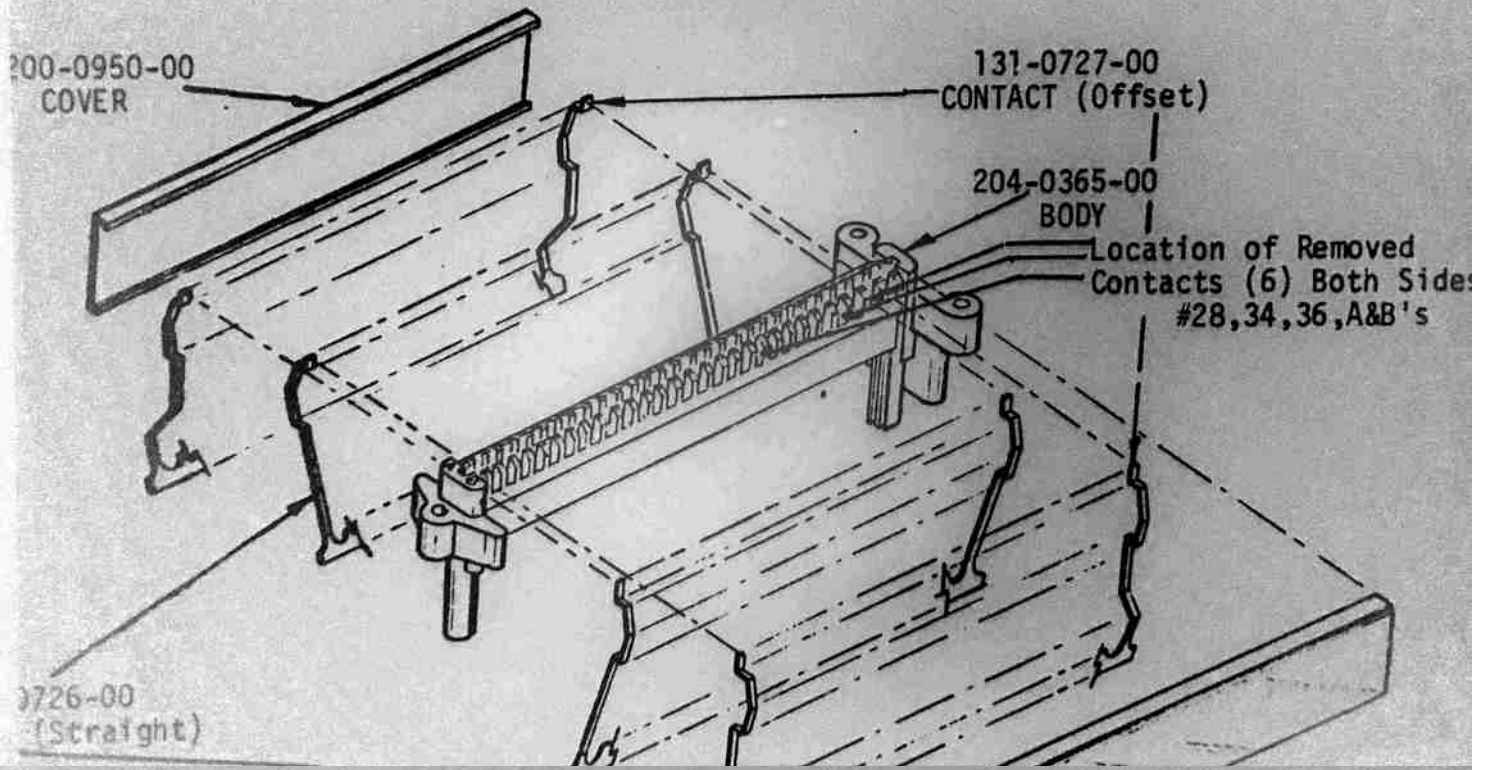
B. TO REMOVE UNUSED CONTACTS FROM MAIN FRAMES: (Refer to drawing on Page 4)

- () 1. Remove the right side and bottom covers.
- () 2. Remove the circuit boards that are mounted on the plug-in side of the main interface connector circuit board to gain access to connectors.
- () 3. Remove the plastic covers* (200-0950-00) from the plug-in connectors using tool PN 003-0718-00. Or as an alternative, use the flat blade of a small screw driver and carefully pry off each cover by starting at one end and proceeding across in steps, releasing a small portion with each step. Be sure to pry against the edge of the cover only to avoid breaking off the plastic fingers that separate the contacts.
- () 4. Remove contacts 28A & B, 34A & B, and 36A & B as follows:
 - a) With a pair of needle nose pliers, unclip the contact from the connector.
 - b) Grasp the contact with the needle nose pliers and unsolder the contact from the main interface circuit board with a miniature soldering iron (15 watt).
- () 5. To reinstall the connector covers, set the back edge of the cover in place, then snap the front edge in place, beginning at one end and proceeding to the other end in zipper fashion keeping back edge in place as you proceed.

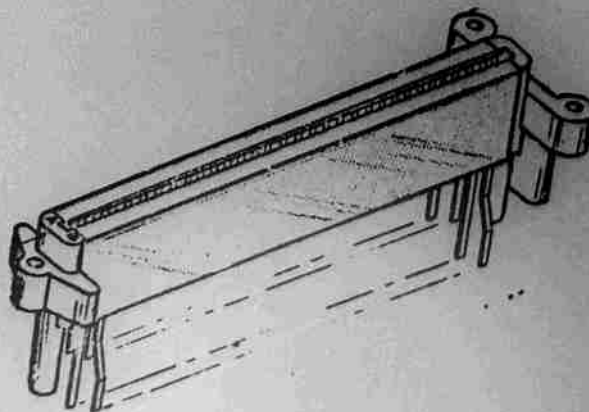
* Cover from original die may fail at front edge while covers from new die (flat surface across ends) are free of this problem and are easier to remove.

TYPICAL
CONNECTOR, RECEPTACLE, ELEC.
(PLUG-IN CKT. BD.)

131-0767-XX



EXPLODED VIEW



ASSEMBLED VIEW